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10/733,037	12/11/2003	Keith J. Purcell	RSW920030159US1	8444
23307 7590 12/07/2007 SYNNESTVEDT & LECHNER, LLP 1101 MARKET STREET 26TH FLOOR PHILADELPHIA, PA 19107-2950			EXAMINER CHEN, QING	
			ART UNIT 2191	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/733,037

Applicant(s)

PURCELL, KEITH J.

Examiner

Qing Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- * Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the RCE filed on October 9, 2007.
2. **Claims 1-9 and 12-26** are pending.
3. **Claims 1, 12, 14-19, and 21-26** have been amended.
4. **Claims 10, 11, and 27** have been cancelled.
5. Applicant fails to address the objection to the specification due to the use of trademarks. Accordingly, this objection is maintained and further explained below.
6. The objections to Claims 14-18 and 21-26 are withdrawn in view of Applicant's amendments to the claims. The objection to Claim 27 is withdrawn in view of Applicant's cancellation of the claim.
7. The 35 U.S.C. § 112, second paragraph, rejections of Claims 10, 11, and 27 are withdrawn in view of Applicant's cancellation of the claims.

Response to Amendment

Specification

8. The use of trademarks, such as JAVA, J2EE, and JAVASERVER, has been noted in this application. Trademarks should be capitalized wherever they appear (capitalize each letter OR accompany each trademark with an appropriate designation symbol, *e.g.*, TM or ®) and be accompanied by the generic terminology (use trademarks as adjectives modifying a descriptive noun, *e.g.*, "the JAVA programming language").

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Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Objections

9. **Claims 1, 12, and 17-19** are objected to because of the following informalities:

- **Claims 1, 12, and 19** contain the following typographical errors:
 - A comma (,) should be added between the words “grid” and “wherein.”
 - “said computation gird” should read -- said computational grid --.
- **Claims 17 and 18** recite the limitation “the computer readable instructions.”

Applicant is advised to change this limitation to read “the computer executable instructions” for the purpose of keeping the claim language consistent throughout the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. **Claims 1-9 and 12-26** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was

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not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 12, and 19 recite the limitation of a plurality of computers sharing computational resources. The subject matter is not properly described in the application as filed, since the specification only discloses a computational grid containing a series of nodes and the nodes are surveyed to select an appropriate node (*see Figure 1; Paragraphs [0006], [0012], and [0015]*). The specification lacks disclosure on the series of nodes sharing computational resources with each other. Because the specification does not adequately support the claimed subject matter, it would not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 2-9 depend on Claim 1 and, therefore, suffer the same deficiency as Claim 1.

Claims 13-18 depend on Claim 12 and, therefore, suffer the same deficiency as Claim 12.

Claims 20-26 depend on Claim 19 and, therefore, suffer the same deficiency as Claim 19.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 1-9 and 12-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US 2004/0088688 (hereinafter "Hejlsberg")** in view of **US 7,185,046 (hereinafter "Ferstl")**.

As per **Claim 1**, Hejlsberg discloses:

- generating a description of an application (*see Figure 2: 200; Paragraph [0006], "... a file, such as a database mapping description or declaration, is authored by a user or a design tool in a particular data language in which a format can be defined, such as XML. Such an exemplary file is referred to as a blueprint ..."*);
- providing said description to a web service (*see Paragraphs [0017], "Blueprints allow the ASP.NET markup-and-code paradigm to be extended to other domains such as user interfaces, database mapping, web services, and compiled extensible stylesheet language (XSL) transforms." and [0087], "The present invention can be applied to a wide variety of technologies, such as ... web services ..."*);
- parsing said description by said web service (*see Paragraph [0035], "Upon receiving the blueprint 200, the blueprint translator 210 parses the blueprint (using, e.g., an XML parser) ..."*);
- supplying said description to said node (*see Paragraph [0035], "... provides the parsed blueprint to a Document Object Model (DOM) for further processing. The output of the DOM is provided to a semantic analyzer and code generator. Source code 220 is thereby*

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generated in accordance with predetermined schemas, patterns, and/or hierarchical rules, for example.”);

- applying said description to said suitable coding module to generate an output object *(see Paragraph [0035], “... provides the parsed blueprint to a Document Object Model (DOM) for further processing. The output of the DOM is provided to a semantic analyzer and code generator. Source code 220 is thereby generated in accordance with predetermined schemas, patterns, and/or hierarchical rules, for example.”; Paragraph [0058], “... a blueprint translator can use the CodeDOM (an object model for abstract syntax trees and code generation provided in the System.CodeDom namespace) to generate source code in a language-neutral fashion.”);* and

- returning said output object *(see Paragraph [0035], “The source code 220 may access or point to a supporting framework or class library 230.”).*

However, Hejlsberg does not disclose:

- locating a suitable coding module on a node contained within a computational grid, wherein said computational grid includes a plurality of computers sharing computational resources.

Ferstl discloses:

- locating a suitable coding module on a node contained within a computational grid, wherein said computational grid includes a plurality of computers sharing computational resources *(see Column 1: 52-67 to Column 2: 1-4, “A computing grid is a hardware and software infrastructure serving to handle computing jobs submitted by a user. The computing grid may interconnect distributed computers, storage devices, mobile devices, instruments,*

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sensors, data bases and/or software applications. Generally a computing grid may comprise virtually any kind of computing device and includes a grid infrastructure to handle the distribution of computing jobs.” and “Upon receiving an instruction to distribute a computing job the grid infrastructure selects a suitable computing device and transfers the computing job to the selected computing device.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ferstl into the teaching of Hejlsberg to include locating a suitable coding module on a node contained within a computational grid, wherein said computational grid includes a plurality of computers sharing computational resources. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a plural number of computing devices to quickly solve a single computing task (*see Ferstl – Column 1: 46-50*).

As per **Claim 2**, the rejection of **Claim 1** is incorporated; however, Hejlsberg does not disclose:

- wherein said suitable coding module comprises a plurality of coding modules.

Ferstl discloses:

- wherein said suitable coding module comprises a plurality of coding modules (*see Column 1: 52-67 to Column 2: 1-4, “A computing grid is a hardware and software infrastructure serving to handle computing jobs submitted by a user. The computing grid may interconnect distributed computers, storage devices, mobile devices, instruments, sensors, data bases and/or software applications. Generally a computing grid may comprise virtually any kind*

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of computing device and includes a grid infrastructure to handle the distribution of computing jobs.” and “Upon receiving an instruction to distribute a computing job the grid infrastructure selects a suitable computing device and transfers the computing job to the selected computing device.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ferstl into the teaching of Hejlsberg to include wherein said suitable coding module comprises a plurality of coding modules. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a plural number of computing devices to quickly solve a single computing task (*see Ferstl – Column 1: 46-50*).

As per **Claim 3**, the rejection of **Claim 2** is incorporated; however, Hejlsberg does not disclose:

- wherein said plurality of coding modules is located on a plurality of nodes within a computational grid.

Ferstl discloses:

- wherein said plurality of coding modules is located on a plurality of nodes within a computational grid (*see Column 1: 52-67 to Column 2: 1-4, “A computing grid is a hardware and software infrastructure serving to handle computing jobs submitted by a user. The computing grid may interconnect distributed computers, storage devices, mobile devices, instruments, sensors, data bases and/or software applications. Generally a computing grid may comprise virtually any kind of computing device and includes a grid infrastructure to handle the*

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distribution of computing jobs.” and “Upon receiving an instruction to distribute a computing job the grid infrastructure selects a suitable computing device and transfers the computing job to the selected computing device.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ferstl into the teaching of Hejlsberg to include wherein said plurality of coding modules is located on a plurality of nodes within a computational grid. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a plural number of computing devices to quickly solve a single computing task (*see Ferstl – Column 1: 46-50*).

As per **Claim 4**, the rejection of **Claim 1** is incorporated; and Hejlsberg further discloses:

- wherein said description is generated using Object Meta Language (OML) (*see Paragraph [0006], “... a file, such as a database mapping description or declaration, is authored by a user or a design tool in a particular data language in which a format can be defined, such as XML. Such an exemplary file is referred to as a blueprint ... ”*).

As per **Claim 5**, the rejection of **Claim 4** is incorporated; and Hejlsberg further discloses:

- wherein said OML is an eXtensible Markup Language (XML) dialect (*see Paragraph [0006], “... a file, such as a database mapping description or declaration, is authored by a user or a design tool in a particular data language in which a format can be defined, such as XML. Such an exemplary file is referred to as a blueprint ... ”*).

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As per **Claim 6**, the rejection of **Claim 1** is incorporated; and Hejlsberg further discloses:

- wherein said suitable coding module is an XML template (*see Paragraph [0047], "In addition, the framework defines a file extension, .dbml, and includes a blueprint translator that can translate .dbml files containing XML-formatted mapping descriptions into source code that targets the framework."*).

As per **Claim 7**, the rejection of **Claim 1** is incorporated; and Hejlsberg further discloses:

- wherein said suitable coding module is an eXtensible Stylesheet Language (XSL) style sheet (*see Paragraph [0017], "Blueprints allow the ASP.NET markup-and-code paradigm to be extended to other domains such as user interfaces, database mapping, web services, and compiled extensible stylesheet language (XSL) transforms."*).

As per **Claim 8**, the rejection of **Claim 7** is incorporated; and Hejlsberg further discloses:

- parsing said description to locate at least one variable (*see Paragraph [0048], "... mapping the Customers table in the database to a Customer class in the Northwind namespace. Further details of the mapping include the CustomerID column that maps to an Id property, the ContactName column that maps to a Name property, etc."*); and

- substituting said at least one variable with at least one replacement variable, wherein said at least one replacement variable is the result of an XML/XSL transform (*see Paragraphs [0048], "... the blueprint calls for an Orders collection to be generated in the Customer class based on the relation between the Customer and Order classes described in the <relation> element."* and [0050], "A blueprint like the one set forth above would typically be generated by

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a database design tool, but it could also be authored manually or created by an XML transformation.”).

As per **Claim 9**, the rejection of **Claim 6** is incorporated; and Hejlsberg further discloses:

- parsing said description to locate at least one variable (*see Paragraph [0048], “... mapping the Customers table in the database to a Customer class in the Northwind namespace. Further details of the mapping include the CustomerID column that maps to an Id property, the ContactName column that maps to a Name property, etc.”*); and
- substituting said at least one variable with at least one replacement variable, wherein said at least one replacement variable is stored in said XML template (*see Paragraphs [0048], “... the blueprint calls for an Orders collection to be generated in the Customer class based on the relation between the Customer and Order classes described in the <relation> element.” and [0050], “A blueprint like the one set forth above would typically be generated by a database design tool, but it could also be authored manually or created by an XML transformation.”*).

Claims 12-18 are computer program product claims corresponding to the method claims above (Claims 1 and 4-9) and, therefore, are rejected for the same reasons set forth in the rejections of Claims 1 and 4-9.

As per **Claim 19**, Hejlsberg discloses:

- an input terminal for inputting an application description (*see Figure 1: 110*);

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- a web service for supplying said application description (*see Paragraph [0087], "The present invention can be applied to a wide variety of technologies, such as ... web services ..."*); and

- a coding module, wherein said coding module generates an object from said application description (*see Paragraph [0035], "... provides the parsed blueprint to a Document Object Model (DOM) for further processing. The output of the DOM is provided to a semantic analyzer and code generator. Source code 220 is thereby generated in accordance with predetermined schemas, patterns, and/or hierarchical rules, for example."*; Paragraph [0058], "... a blueprint translator can use the CodeDOM (an object model for abstract syntax trees and code generation provided in the System.CodeDom namespace) to generate source code in a language-neutral fashion.").

However, Hejlsberg does not disclose:

- a computational grid, wherein said computational grid includes a plurality of computers sharing computational resources.

Ferstl discloses:

- a computational grid, wherein said computational grid includes a plurality of computers sharing computational resources (*see Column 1: 52-67 to Column 2: 1-4, "A computing grid is a hardware and software infrastructure serving to handle computing jobs submitted by a user. The computing grid may interconnect distributed computers, storage devices, mobile devices, instruments, sensors, data bases and/or software applications. Generally a computing grid may comprise virtually any kind of computing device and includes a grid infrastructure to handle the distribution of computing jobs."* and "Upon receiving an

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instruction to distribute a computing job the grid infrastructure selects a suitable computing device and transfers the computing job to the selected computing device.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ferstl into the teaching of Hejlsberg to include a computational grid, wherein said computational grid includes a plurality of computers sharing computational resources. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a plural number of computing devices to quickly solve a single computing task (*see Ferstl – Column 1: 46-50*).

As per **Claim 20**, the rejection of **Claim 19** is incorporated; however, Hejlsberg does not disclose:

- wherein said coding module comprises a plurality of coding modules.

Ferstl discloses:

- wherein said coding module comprises a plurality of coding modules (*see Column 1: 52-67 to Column 2: 1-4, “A computing grid is a hardware and software infrastructure serving to handle computing jobs submitted by a user. The computing grid may interconnect distributed computers, storage devices, mobile devices, instruments, sensors, data bases and/or software applications. Generally a computing grid may comprise virtually any kind of computing device and includes a grid infrastructure to handle the distribution of computing jobs.” and “Upon receiving an instruction to distribute a computing job the grid infrastructure selects a suitable computing device and transfers the computing job to the selected computing device.”).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ferstl into the teaching of Hejlsberg to include wherein said coding module comprises a plurality of coding modules. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a plural number of computing devices to quickly solve a single computing task (*see Ferstl – Column 1: 46-50*).

As per **Claim 21**, the rejection of **Claim 19** is incorporated; and Hejlsberg further discloses:

- wherein said application description is generated using Object Meta Language (OML) (*see Paragraph [0006], "... a file, such as a database mapping description or declaration, is authored by a user or a design tool in a particular data language in which a format can be defined, such as XML. Such an exemplary file is referred to as a blueprint ... "*).

As per **Claim 22**, the rejection of **Claim 21** is incorporated; and Hejlsberg further discloses:

- wherein said OML is an eXtensible Markup Language (XML) dialect (*see Paragraph [0006], "... a file, such as a database mapping description or declaration, is authored by a user or a design tool in a particular data language in which a format can be defined, such as XML. Such an exemplary file is referred to as a blueprint ... "*).

As per **Claim 23**, the rejection of **Claim 19** is incorporated; and Hejlsberg further discloses:

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- wherein said coding module is an XML template (*see Paragraph [0047], "In addition, the framework defines a file extension, .dbml, and includes a blueprint translator that can translate .dbml files containing XML-formatted mapping descriptions into source code that targets the framework."*).

As per **Claim 24**, the rejection of **Claim 19** is incorporated; and Hejlsberg further discloses:

- wherein said coding module is an eXtensible Stylesheet Language (XSL) style sheet (*see Paragraph [0017], "Blueprints allow the ASP.NET markup-and-code paradigm to be extended to other domains such as user interfaces, database mapping, web services, and compiled extensible stylesheet language (XSL) transforms."*).

As per **Claim 25**, the rejection of **Claim 24** is incorporated; and Hejlsberg further discloses:

- parsing said description to locate at least one variable (*see Paragraph [0048], "... mapping the Customers table in the database to a Customer class in the Northwind namespace. Further details of the mapping include the CustomerID column that maps to an Id property, the ContactName column that maps to a Name property, etc."*); and

- substituting said at least one variable with at least one replacement variable, wherein said at least one replacement variable is the result of an XML/XSL transform (*see Paragraphs [0048], "... the blueprint calls for an Orders collection to be generated in the Customer class based on the relation between the Customer and Order classes described in the <relation>*

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element.” and [0050], “A blueprint like the one set forth above would typically be generated by a database design tool, but it could also be authored manually or created by an XML transformation.”).

As per **Claim 26**, the rejection of **Claim 23** is incorporated; and Hejlsberg further discloses:

- parsing said description to locate at least one variable (*see Paragraph [0048], “... mapping the Customers table in the database to a Customer class in the Northwind namespace. Further details of the mapping include the CustomerID column that maps to an Id property, the ContactName column that maps to a Name property, etc.”*); and
- substituting said at least one variable with at least one replacement variable, wherein said at least one replacement variable is stored in said XML template (*see Paragraphs [0048], “... the blueprint calls for an Orders collection to be generated in the Customer class based on the relation between the Customer and Order classes described in the <relation> element.” and [0050], “A blueprint like the one set forth above would typically be generated by a database design tool, but it could also be authored manually or created by an XML transformation.”*).

Response to Arguments

14. Applicant’s arguments with respect to Claims 1, 12, and 19 have been considered, but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

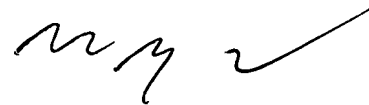
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QC

November 30, 2007



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SUPERVISORY PATENT EXAMINER